

**S**YSTEM **P**LANNING & **A**NALYSIS **R**EPORT

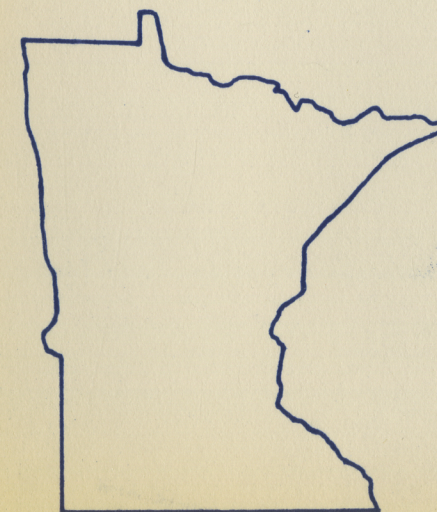
**S-72**

T. H. 94  
DOWLING AVENUE TO T. H. 12

S. P. 2781-09

DECEMBER, 1971

PREPARED BY  
**OFFICE OF SYSTEM PLANNING**



**MINNESOTA  
DEPARTMENT  
OF HIGHWAYS**



STATE OF MINNESOTA

## Office Memorandum

DEPARTMENT HIGHWAY - Statewide Planning  
Room 807 Ext. 3158TO : Paul G. Velz  
Road Design Engineer

DATE: December 8, 1971

FROM : Morris Gildemeister, Chief  
Statewide Planning SectionSUBJECT: T.H. 94, Dowling Avenue to T.H. 12  
S.P. 2781-09  
System Planning & Analysis Report S-72

The Statewide Planning Section transmits this report in response to J.E. Sandahl's July 22, 1971 request for the 1985 ADT, DHV, and HCADT for the project location shown on the map on page 2.

The estimated 1985 ADT volumes are shown on the map on page 3.

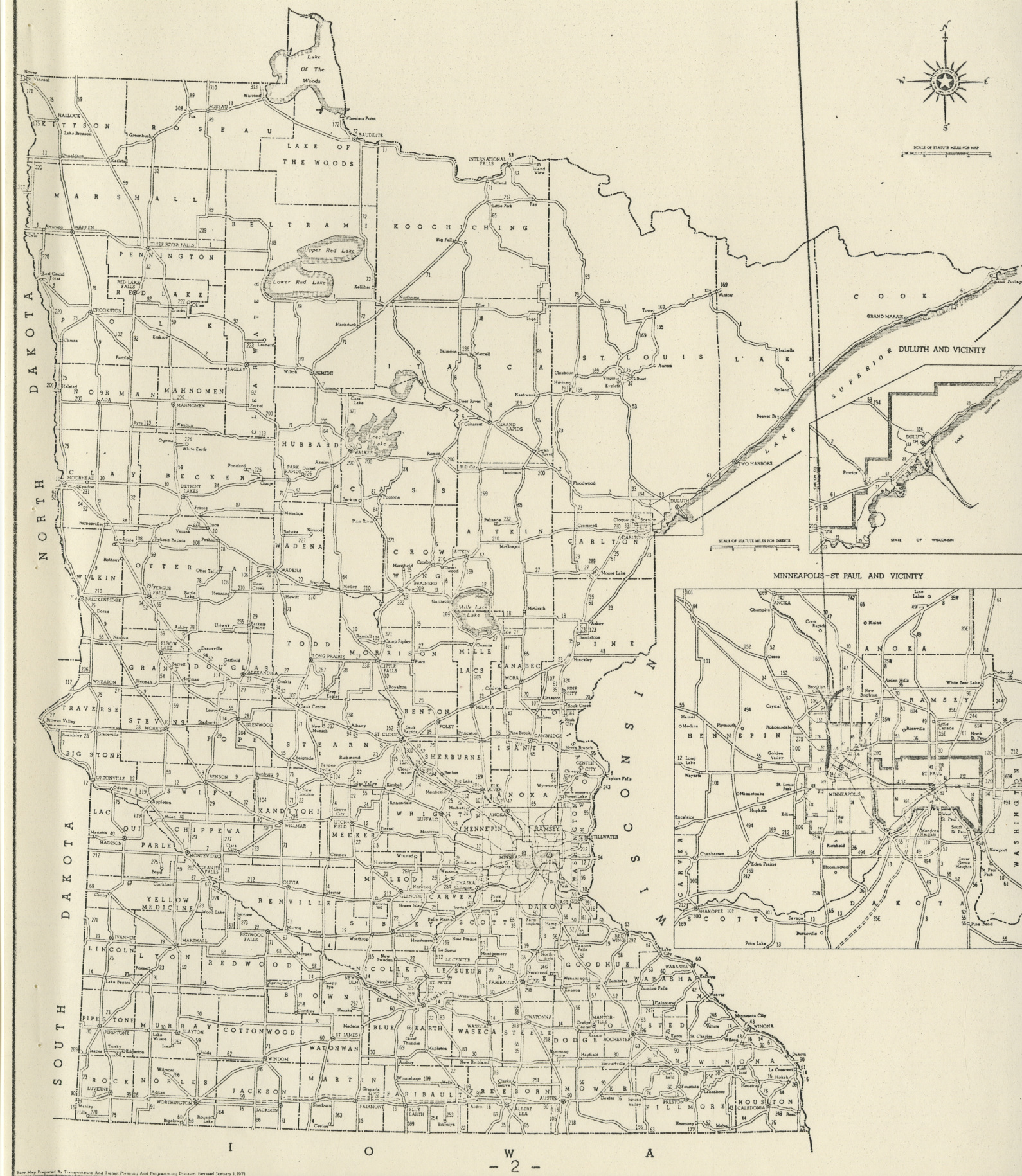
For each segment numbered on the map on page 3, the following data are tabulated on pages 4-11:

- (a) Total ADT
- (b) Vehicle Type Distribution
- (c) Total HCADT

The basic data, method, and assumptions used to prepare this report are presented on page 12.

*Morris Gildemeister*

Morris Gildemeister, Chief  
Statewide Planning Section

STATE OF MINNESOTA  
DEPARTMENT OF HIGHWAYS  
WORK MAPProject Location  
SP 2781-09



## TRAFFIC ESTIMATE DATA

DESIGN YEAR 1985 PART 1 OF 8

FOR

T.H. 94 S.P. 2781-09 LENGTH --- MILESCOUNTY Hennepin LOCATION Dowling Avenue to T.H. 12

BASED ON

1985 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

TOTAL ADT ON SEGMENTS 1 THROUGH 11 AS

DEFINED ON ATTACHED INDEX MAP

VEHICLE # TYPE	SEGMENT NUMBER										
	1	2	3	4	5	6	7	8	9	10	11
0	29260	9210	20050	9710	10340	17740	28080	11125	13051	30006	5564
1	3.2 1025	3.1 300	725	3.3 350	375	2.9 535	910	2.2 263	425	1072	2.2 129
2	.7 219	1.1 111	108	.5 52	56	.8 146	202	.7 86	89	205	.7 44
3	.3 84	.4 36	48	.2 23	25	.4 82	107	.3 39	28	96	.3 19
4	.6 188	.1 12	176	.8 85	91	.3 64	155	.7 78	44	121	.7 41
5	1.4 441	.9 85	356	1.6 172	184	.4 83	267	1.1 135	75	207	1.1 66
6	2.1 683	.5 46	637	2.9 308	329	.3 50	379	.6 74	288	593	.6 37
TOTAL ADT	31900	9800	22100	10700	11400	18700	30100	11800	14000	32300	5900
TOTAL H. COMM. ADT	8.3 2640	6.0 590	2050	9.2 990	1060	5.1 960	2020	5.7 675	949	2294	5.7 336
TOTAL DHV											
DIRECTIONAL DISTRIBUTION											

## \* VEHICLE TYPE CODE

0 = PASSENGER CARS AND 4 TIRE TRUCKS  
 1 = SINGLE UNIT-2 AXLE-6 TIRE TRUCKS  
 2 = SINGLE UNIT-3 AXLE TRUCKS  
 3 = TRACTOR-TRUCK OR SEMI-TRAILER- 3 AXLES  
 4 = TRACTOR-TRUCK OR SEMI-TRAILER - 4 AXLES  
 5 = TRACTOR-TRUCK OR SEMI-TRAILER - 5 AXLES  
 6 = BUSES AND TRUCKS WITH TRAILERS

## TRAFFIC ESTIMATE DATA

DESIGN YEAR 1985 PART 2 OF 8

FOR

T.H. 94 S.P. 2781-09 LENGTH --- MILESCOUNTY Hennepin LOCATION Dowling Avenue to T.H. 12

BASED ON

1985 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

TOTAL ADT ON SEGMENTS 12 THROUGH 22 AS

DEFINED ON ATTACHED INDEX MAP

VEHICLE # TYPE	SEGMENT NUMBER										
	12	13	14	15	16	17	18	19	20	21	22
0	35570	6400	3694	32864	37250	40281	16326	20933	19348	6639	2431
1	1201	208	105	1098	1216	3.0 1292	514	632	660	3.6 258	3.6 94
2	249	68	31	212	404	.9 378	169	236	142	.7 49	.7 18
3	115	34	8	89	161	.4 186	69	77	109	.4 31	.4 11
4	162	62	14	114	78	.3 115	38	48	67	.4 26	.4 10
5	273	94	35	214	390	.8 352	118	180	172	.5 38	.5 14
6	630	34	13	609	301	.7 296	66	94	202	.8 59	.8 22
TOTAL ADT	38200	6900	3900	35200	39800	42900	17300	22200	20700	7100	2600
TOTAL H. COMM. ADT	2630	500	206	2336	2550	6.1 2619	974	1267	1352	6.5 461	6.5 169
TOTAL DHV											
DIRECTIONAL DISTRIBUTION											

## \* VEHICLE TYPE CODE

0 = PASSENGER CARS AND 4 TIRE TRUCKS  
 1 = SINGLE UNIT-2 AXLE-6 TIRE TRUCKS  
 2 = SINGLE UNIT-3 AXLE TRUCKS  
 3 = TRACTOR-TRUCK OR SEMI-TRAILER- 3 AXLES  
 4 = TRACTOR-TRUCK OR SEMI-TRAILER - 4 AXLES  
 5 = TRACTOR-TRUCK OR SEMI-TRAILER - 5 AXLES  
 6 = BUSES AND TRUCKS WITH TRAILERS



## TRAFFIC ESTIMATE DATA

DESIGN YEAR 1985 PART 4 OF 8

FOR

T.H. 94 S.P. 2781-09 LENGTH --- MILES  
COUNTY Hennepin LOCATION Dowling Avenue to T.H. 12

BASED ON

1985 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

TOTAL ADT ON SEGMENTS 34 THROUGH 44 AS  
DEFINED ON ATTACHED INDEX MAP

VEHICLE # TYPE	SEGMENT NUMBER										
	34	35	36	37	38	39	40	41	42	43	44
0	7751	1838	5913	2896	3203	1365	12012	1019	4039	1653	2223
1	276	84	192	205	154	70	551	30	186	76	2.7
2	42	11	31	25	31	20	87	9	25	10	.8
3	21	7	14	9	15	8	38	3	15	6	.3
4	39	6	33	7	14	8	54	4	15	6	.4
5	80	7	73	4	26	19	103	9	15	6	.8
6	91	47	44	54	57	10	155	26	105	43	2.4
TOTAL ADT	8300	2000	6300	3200	3500	1500	13000	1100	4400	1800	2400
TOTAL H. COMM. ADT	549	162	387	304	297	135	988	81	361	147	7.4
TOTAL DHV											
DIRECTIONAL DISTRIBUTION											

## \* VEHICLE TYPE CODE

- 0 = PASSENGER CARS AND 4 TIRE TRUCKS  
 1 = SINGLE UNIT-2 AXLE-6 TIRE TRUCKS  
 2 = SINGLE UNIT-3 AXLE TRUCKS  
 3 = TRACTOR-TRUCK OR SEMI-TRAILER- 3 AXLES  
 4 = TRACTOR-TRUCK OR SEMI-TRAILER - 4 AXLES  
 5 = TRACTOR-TRUCK OR SEMI-TRAILER - 5 AXLES  
 6 = BUSES AND TRUCKS WITH TRAILERS

## TRAFFIC ESTIMATE DATA

DESIGN YEAR 1985 PART 3 OF 8

FOR

T.H. 94 S.P. 2781-09 LENGTH --- MILES  
COUNTY Hennepin LOCATION Dowling Avenue to T.H. 12

BASED ON

1985 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

TOTAL ADT ON SEGMENTS 23 THROUGH 33 AS  
DEFINED ON ATTACHED INDEX MAP

VEHICLE # TYPE	SEGMENT NUMBER										
	23	24	25	26	27	28	29	30	31	32	33
0	16130	17990	10950	11580	16516	17557	17340	17090	10715	8877	9589
1	700	4.0	3.9	470	500	469	495	502	481	392	308
2	110	.5	.7	80	80	132	139	141	135	62	51
3	40	.2	.3	30	30	44	46	47	45	31	24
4	200	1.1	1.1	140	59	62	63	60	49	43	45
5	350	2.0	1.9	230	250	146	154	156	149	96	89
6	170	.1	.9	110	120	234	247	251	240	155	108
TOTAL ADT	17700	19700	12000	12700	17600	18700	19000	18200	11500	9500	10300
TOTAL H. COMM. ADT	1570	8.7	8.8	1050	1120	1084	1143	1160	1110	785	623
TOTAL DHV											
DIRECTIONAL DISTRIBUTION											

## \* VEHICLE TYPE CODE

- 0 = PASSENGER CARS AND 4 TIRE TRUCKS  
 1 = SINGLE UNIT-2 AXLE-6 TIRE TRUCKS  
 2 = SINGLE UNIT-3 AXLE TRUCKS  
 3 = TRACTOR-TRUCK OR SEMI-TRAILER- 3 AXLES  
 4 = TRACTOR-TRUCK OR SEMI-TRAILER - 4 AXLES  
 5 = TRACTOR-TRUCK OR SEMI-TRAILER - 5 AXLES  
 6 = BUSES AND TRUCKS WITH TRAILERS



TRAFFIC ESTIMATE DATA

DESIGN YEAR 1985 PART 5 OF 8

FOR

T.H. 94 S.P. 2781-09 LENGTH --- MILES  
COUNTY Hennepin LOCATION Dowling Avenue to T.H. 12

BASED ON

1985 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

TOTAL ADT ON SEGMENTS 45 THROUGH 55 AS  
DEFINED ON ATTACHED INDEX MAP

VEHICLE * TYPE	SEGMENT NUMBER										
	45	46	47	48	49	50	51	52	53	54	55
0	18569	16124	15939	5008	6865	31324	1409	4607	16093	187	16280
1	2.2 441	2.2 381	375	163	223	1060	41	2.4 118	621	7	628
2	.7 144	.7 124	122	53	73	272	4	1.4 67	117	1	118
3	.3 65	.3 56	55	27	36	131	2	.2 8	74	1	75
4	.7 131	.7 113	111	48	66	110	3	.2 10	62	1	63
5	1.1 226	1.1 195	192	74	101	204	4	1.3 62	92	1	93
6	.6 124	.6 107	106	27	36	199	37	.6 28	141	2	143
TOTAL ADT	19800	17100	16900	5400	7400	33300	1500	4900	17200	200	17400
TOTAL H. COMM. ADT	5.7 1131	5.7 976	961	392	535	1976	91	6.0 293	1107	13	1120
TOTAL DHV											
DIRECTIONAL DISTRIBUTION											

\* VEHICLE TYPE CODE

- 0= PASSENGER CARS AND 4 TIRE TRUCKS  
1= SINGLE UNIT-2 AXLE-6 TIRE TRUCKS  
2= SINGLE UNIT-3 AXLE TRUCKS  
3= TRACTOR-TRUCK OR SEMI-TRAILER- 3 AXLES
- 4= TRACTOR-TRUCK OR SEMI-TRAILER - 4 AXLES  
5= TRACTOR-TRUCK OR SEMI-TRAILER - 5 AXLES  
6= BUSES AND TRUCKS WITH TRAILERS

TRAFFIC ESTIMATE DATA

DESIGN YEAR 1985 PART 6 OF 8

FOR

T.H. 94 S.P. 2781-09 LENGTH --- MILES  
COUNTY Hennepin LOCATION Dowling Avenue to T.H. 12

BASED ON

1985 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

TOTAL ADT ON SEGMENTS 56 THROUGH 66 AS  
DEFINED ON ATTACHED INDEX MAP

VEHICLE * TYPE	SEGMENT NUMBER										
	56	57	58	59	60	61	62	63	64	65	66
0	12445	22155	16923	15353	1570	8585	10155	16771	16493	15752	15474
1	480	830	507	462	45	175	220	2.7 490	482	460	452
2	90	142	118	102	16	48	64	.8 147	144	138	136
3	57	80	67	64	3	16	19	.3 50	49	47	46
4	48	133	63	56	7	30	37	.4 71	70	67	66
5	71	243	117	100	17	54	71	.8 146	144	137	134
6	109	417	405	363	42	192	234	2.3 425	418	399	392
TOTAL ADT	13300	24000	18200	16500	1700	9100	10800	18100	17800	17000	16700
TOTAL H. COMM. ADT	855	1845	1277	1147	130	515	645	7.3 1329	1307	1248	1226
TOTAL DHV											
DIRECTIONAL DISTRIBUTION											

\* VEHICLE TYPE CODE

- 0= PASSENGER CARS AND 4 TIRE TRUCKS  
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2= SINGLE UNIT-3 AXLE TRUCKS  
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- 4= TRACTOR-TRUCK OR SEMI-TRAILER - 4 AXLES  
5= TRACTOR-TRUCK OR SEMI-TRAILER - 5 AXLES  
6= BUSES AND TRUCKS WITH TRAILERS



## TRAFFIC ESTIMATE DATA

DESIGN YEAR 1985 PART 7 OF 8

FOR

T.H. 94 S.P. 2781-09 LENGTH --- MILESCOUNTY Hennepin LOCATION Dowling Avenue to T.H. 12

BASED ON

1985 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

TOTAL ADT ON SEGMENTS 67 THROUGH 77 AS

DEFINED ON ATTACHED INDEX MAP

VEHICLE # TYPE	SEGMENT NUMBER										
	67	68	69	70	71	72	73	74	75	76	77
0	17912	19482	20794	24627	14917	18773	1682	17091	27715	7116	10624
1	509	554	591	758	408	591	53	538	859	214	321
2	189	205	216	235	183	203	18	185	273	58	88
3	35	38	42	50	27	35	3	32	81	33	49
4	86	93	98	146	61	67	6	61	99	26	38
5	190	207	218	302	130	135	12	123	173	33	50
6	479	521	541	582	274	296	26	270	300	20	30
TOTAL ADT	19400	21100	22500	26700	16000	20100	1800	18300	29500	7500	11200
TOTAL H. COMM. ADT	1488	1618	1706	2073	1083	1327	118	1209	1785	384	576
TOTAL DHV											
DIRECTIONAL DISTRIBUTION											

## \* VEHICLE TYPE CODE

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 4 = TRACTOR-TRUCK OR SEMI-TRAILER - 4 AXLES  
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 6 = BUSES AND TRUCKS WITH TRAILERS

## TRAFFIC ESTIMATE DATA

DESIGN YEAR 1985 PART 8 OF 8

FOR

T.H. 94 S.P. 2781-09 LENGTH --- MILESCOUNTY Hennepin LOCATION Dowling Avenue to T.H. 12

BASED ON

1985 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

TOTAL ADT ON SEGMENTS 78 THROUGH 84 AS

DEFINED ON ATTACHED INDEX MAP

VEHICLE # TYPE	SEGMENT NUMBER										
	78	79	80	81	82	83	84				
0	10342	10893	9338	20463	10436	10254	20924				
1	497	523	448	711	501	492	702				
2	100	105	90	176	100	98	235				
3	48	50	43	82	48	47	92				
4	45	47	40	118	45	44	40				
5	84	88	75	210	84	82	272				
6	184	194	166	240	186	183	235				
TOTAL ADT	11300	11900	10200	22000	11400	11200	22500				
TOTAL H. COMM. ADT	958	1007	862	1537	964	946	1576				
TOTAL DHV											
DIRECTIONAL DISTRIBUTION											

## \* VEHICLE TYPE CODE

- 0 = PASSENGER CARS AND 4 TIRE TRUCKS  
 1 = SINGLE UNIT-2 AXLE-6 TIRE TRUCKS  
 2 = SINGLE UNIT-3 AXLE TRUCKS  
 3 = TRACTOR-TRUCK OR SEMI-TRAILER- 3 AXLES  
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 6 = BUSES AND TRUCKS WITH TRAILERS



Basic Data, Method, and Assumptions

The 1985 ADT and peak hour volumes were transmitted November 16, 1970 in SPAR M-37.

Total heavy commercial ADT agrees with System 14 heavy truck volumes. The SPAR M-37 shows System 14 traffic volumes on System 16 highway network. Vehicle type distributions are based on vehicle class counts taken in the project area.